4.5 Fire Protection

Safety Criterion: 4.5 - 1

Two reliable and separate water supplies of adequate capacity for fire suppression shall be provided.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 2

Buildings containing a significant quantity of radioactive and/or hazardous material shall be constructed of noncombustible or fire-resistive material, where appropriate.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 3

Confinement of the fire to its origin should be achieved through passive barriers and by activating systems such as fire and smoke dampers, exhaust fans, and drainage pumps to prevent migration of gases, hot combustion products, and flammable liquids outside the fire area.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 4

Automatic fire extinguishing systems shall be included in all areas subject to loss of Safety Design Class systems, significant life safety hazards, or unacceptable program interruption, unless the Fire Hazards Analysis dictates otherwise. For the RPP-WTP Project the determination of program interruption acceptability is made by the owner, BNFL Inc..

As determined by the Fire Hazards Analysis special hazards shall be provided with additional fixed protection systems.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

Safety Criterion: 4.5 - 5

Redundant Safety Design Class systems and components should be in separate fire areas.

Redundant, primary and secondary, fire protection systems shall be provided in areas where Safety Design Class systems and components are vulnerable to fire damage and where no redundant safety capability exists outside of the fire area.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 6

The design shall incorporate life safety features including means to notify and evacuate building occupants in the event of a fire, such as a fire detection or fire alarm system and illuminated, protected egress paths.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 7

The facility shall include a fire detection system to detect the presence of a fire and activate alarm systems so that measures for confinement and suppression of the fire and personnel evacuation may start promptly. The detection system shall include a means to summon the Hanford Site fire department. The system shall be capable of operation without offsite power.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 8

The facility shall include physical access and appropriate equipment to facilitate effective intervention by the Hanford Site fire department, such as an interior standpipe system.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

BNFL-5193-ISP-01 TWRS-P Project Integrated Safety Management Plan
Section: 3.10 Emergency Preparedness

Safety Criterion: 4.5 - 9

The facility design shall provide for the prevention of accidental release of significant quantities of contaminated products of combustion and fire fighting water to the environment. This can be provided by such features as ventilation control and filter systems, curbs, dikes, and holding ponds.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 10

Fire and related hazards that are unique to the facility and are not addressed by industry codes and standards shall be protected by isolation, segregation, or use of special fire control systems, such as inert gas or explosion suppression, as determined by the Fire Hazards Analysis.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 11

Fire protection systems shall be designed, and/or systems and components protected, such that its/their inadvertent operation, inactivation, or failure of structural stability will not result in the loss of a Safety Design Class function.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 12

The fire protection program shall establish the fire protection policy for the protection of the facility and the procedures, equipment, and personnel required to implement the program. The program shall have the following objectives:
(1) To prevent fires from starting;
(2) To detect early, control and extinguish promptly those fires that do occur; and
(3) To provide protection for Safety Design Class SSCs.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

Safety Criterion: 4.5 - 13

The fire protection program and features shall be characterized by a level of fire protection that is sufficient to fulfill the requirements of the best protected class of industrial risks ("Highly Protected Risk" or "Improved Risk") and shall be provided protection to achieve "defense-in-depth."

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 14

A fire protection program shall be developed that will minimize the potential for the occurrence of a fire or explosive threat and, should such an event occur, the program will limit:
(1) Radiological and hazardous releases from the facility;
(2) The threat to the health and safety of facility workers; and
(3) Interruption of the facility mission to process tank waste.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

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Safety Criterion: 4.5 - 15

The fire protection program will include:
(1) organization, training, and responsibilities of the fire protection staff, including a trained and equipped ~~fire brigade;~~ emergency services organization
(2) inspection, testing, and maintenance of all fire protection systems by personnel properly qualified by experience and training in fire protection systems;
(3) surveillance to ensure that fire barriers are in place and that fire suppression systems and components are operable;
(4) training of all employees in basic fire safety; and
(5) periodic performance of fire drills.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

BNFL-5193-ISP-01 TWRS-P Project Integrated Safety Management Plan
Section: 3.15 Training and Qualification
Chapter: 11.0 Organization Roles, Responsibilities and Authorities
Section: 1.3.9 Quality Assurance Program
Section: 3.10 Emergency Preparedness

Safety Criterion: 4.5 - 16

The fire protection program will include a plan to identify, prioritize and monitor the status of fire protection-related appraisal findings/recommendations until final resolution is achieved. When final resolution will be significantly delayed, appropriate interim compensatory measures shall be implemented to minimize the fire risk.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

BNFL-5193-ISP-01 TWRS-P Project Integrated Safety Management Plan
Chapter: 10.0 Assessments

Safety Criterion: 4.5 - 17

The fire protection program shall ensure fire protection requirements are documented and incorporated in the plans and specifications for all new facilities and for significant modifications of existing facilities. This includes a documented review by a qualified fire protection engineer of plans, specifications, procedures, and acceptance tests.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

BNFL-5193-ISP-01 TWRS-P Project Integrated Safety Management Plan
Chapter: 8.0 Document Control and Maintenance
Section: 1.3.16 Configuration Management

Safety Criterion: 4.5 - 18

The fire protection program shall include a comprehensive, documented fire protection self-assessment program, which includes all aspects (program and facility) of the fire protection program.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

BNFL-5193-ISP-01 TWRS-P Project Integrated Safety Management Plan
Chapter: 10.0 Assessments

Safety Criterion: 4.5 - 19

Administrative controls shall be established to minimize fire hazards. These shall include procedures to:
(1) govern the handling and storage of combustible and flammable materials;
(2) govern the handling of transient fire loads in buildings containing Safety Design Class SSCs;
(3) designate staff members responsible for fire protection review of proposed work activities;
(4) govern the use of ignition sources (e.g., through the use of a flame permit system);
(5) control the expedient removal of combustibles resulting from work activities;
(6) establish compensatory controls for activities which may result in the impairment of fire prevention and/or mitigation features; and
(7) maintain periodic housekeeping inspections to ensure continued compliance with these administrative controls.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

Safety Criterion: 4.5 - 20

A Fire Hazard Analysis (FHA) of the facility shall be performed. Such a systematic analysis shall divide the facility into "fire areas" and evaluate the fire safety of each area and of the facility as a whole. The analysis shall, for each fire area:
(1) Account for all radioactive, hazardous, and combustible materials, including estimates of their heat content;
(2) Describe the processes performed and their potential for fire or explosion;
(3) Account for the sources of heat and flame;
(4) List the fire detection and suppression equipment; and
(5) Consider credible fire scenarios and evaluate the adequacy of the fire protection measures.

In addition, the FHA shall consider other buildings or installations close to process buildings that contain flammable, combustible, or reactive liquid or gas storage.

The FHA shall confirm that the facility can be placed in a safe state during and after all credible fire and explosion conditions.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
DOE-STD-1066-97 Fire Protection Design Criteria, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

BNFL-5193-ISP-01 TWRS-P Project Integrated Safety Management Plan
Section: 4.2.3.1 Safety Analysis Reports

Safety Criterion: 4.5 - 21

The fire protection program shall be under the direction of an individual who has been delegated authority commensurate with the responsibilities of the position and who has available staff knowledgeable in both fire protection and nuclear safety.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

BNFL-5193-ISP-01 TWRS-P Project Integrated Safety Management Plan
Section: 4.2.3.1 Safety Analysis Reports

Safety Criterion: 4.5 - 22

The facility should have on file, and ready to use, a Pre-Fire Plan. The Pre-Fire Plan should assign individual and alternate responsibilities for responding to a fire alarm or call; assessing the situation, suppressing incipient fires, assembling the ~~site Fire Brigade~~ emergency service organization~~, and if necessary, requesting Hanford Site fire department assistance~~, personnel evacuation, orderly shutdown of processes, and safeguarding (if necessary) and control of radioactive and hazardous material.

The plan should clearly indicate, preferably with the help of site plans and drawings, the locations of the fire department-compatible connections and fire-fighting equipment, such as portable extinguishers, automatic fire suppression systems, sectional valves, standpipes, hydrants, and hoses. It should also indicate the areas of concentrations of combustibles, storages of flammable and combustible liquids, and areas where use of water for fire suppression is restricted because of nuclear criticality or other concerns.

The Pre-Fire Plan should be prepared in consultation and coordination with the Hanford Site fire department. The Hanford Site fire department personnel should be given familiarization tours of the facility at least once a year.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

BNFL-5193-ISP-01 TWRS-P Project Integrated Safety Management Plan
Section: 4.2.3.1 Safety Analysis Reports

Safety Criterion: 4.5 - 23

Hot work permits shall be issued for hot work operations conducted in or near the facility. The permit shall document that applicable fire prevention and protection requirements have been implemented prior to beginning the hot work operations; it shall indicate the date(s) authorized for hot work; and identify the object on which hot work is to be performed. The permit shall be kept on file until completion of the hot work operations.

Implementing Codes and Standards:

DOE G-440.1 Implementation Guide for use with DOE Orders 420.1 and 440.1 Fire Safety Program, as tailored
NFPA 801-95 Standard for Facilities Handling Radioactive Materials, as tailored

BNFL-5193-ISP-01 TWRS-P Project Integrated Safety Management Plan
Section: 5.6.6 Hot Work Operations

Regulatory Basis:

29 CFR 1910 Occupational Safety and Health Standards Location: 119 (k)
DOE/RL-96-0006 5.2.8 Hot Work Control

X.0* DOE G-420.1/G-440.1, Implementation Guide for Use with DOE Orders 420.1 and 440.1, Fire Safety Program

Revision: September 30, 1995

Sponsoring Organization: U. S. Department of Energy

RPP-WTP Specific Tailoring

The following tailoring of DOE G-420.1/G-440.1 is required for use by BNFL as an implementing standard for fire safety.

General: Interpret references to "DOE" or "DOE AHJ" or "AHJ" as "DOE Regulatory Unit (RU)" wherever these references refer to regulatory functions that have been assigned to the DOE Regulatory Unit.

Justification: The unique role of the RU in regulating the RPP-WTP Project requires clarification.

Section III.5.0: Add the following words at the end of the paragraph: "The applicable building code for the RPP-WTP Project is the 1997 Uniform Building Code (UBC)."

Justification: To clarify that the code in effect at the time that facility design commenced was the 1997 UBC.

Section III.6.2: Delete the words "and loss potential consistent with defined limits as established by DOE".

Justification: Since the RPP-WTP will be a private facility, owned and operated by BNFL Inc., the limits of loss potential are established by BNFL and its underwriters.

Section III.6.3: Revise to read: "Automatic fire extinguishing systems in all areas subject to loss of safety class systems, significant life safety hazards, or unacceptable program interruption. The FHA may justify the omission of such systems based on safety considerations as approved by the AHJ. For the RPP-WTP Project the determination of program interruption acceptability is made by the owner, BNFL Inc."

Justification: DOE considers a facility with a Maximum Possible Fire Loss (MPFL) in excess of $1 million as being significant from a property protection standpoint (Reference DOE-Std-1066-97, Section 5.3.1.) Since the RPP-WTP is to be a private facility, owned and operated by BNFL Inc., protection requirements based on property loss and the determination of program interruption acceptability are established by BNFL and its underwriters. The addition of sentence referring to the FHA is consistent with governing Safety Criterion 4.5-4, which requires automatic fire suppression "unless the Fire Hazards Analysis dictates otherwise". It is also consistent with the DOE equivalency concept described in DOE G-420.1/G-440.1 Section II.

Section III.6.4: Delete the last sentence of this section.

Justification: Since the RPP-WTP will be a private facility, owned and operated by BNFL Inc., protection requirements based solely on property loss potential are established by BNFL and its underwriters.

* "X", "Y", and "Z" notations in title will be corrected when these pages are inserted in the SRD Appendix C. These sections are all new and are therefore not shown as redline/strikeout.

Section IV.4.5 Change "Description of critical process equipment" to "Identification of Important-To-Safety Equipment", and delete "Description of high-value property", "Damage potential: Maximum Possible Fire Loss (MPFL)", and "Recovery potential".

Justification: The term "critical process equipment" is not well defined for the RPP-WTP Project. By contrast the term "Important-to-Safety" is defined by the DOE regulatory documents, such as DOE/RL-96-0004. Identification of Important-to-Safety equipment is more meaningful and is consistent with the CAR Guidance (RL/REG-99-05). Since the RPP-WTP will be a private facility, owned and operated by BNFL Inc., protection requirements based on property loss and recovery potential are established by BNFL and its underwriters. Property value, property loss and recovery potential are not fire safety issues and need not be addressed in the FHA.

Section IV.4.16: Revise to read: "The fire hazards analysis, including all assumptions, should be documented. When both an FHA and a SAR are developed for a facility, the developmental effort should be coordinated to the maximum extent possible to avoid duplication of effort. It is recognized, however, that because an FHA is based on the premise that a fire will occur, the conclusions of the FHA may be more conservative than would normally be developed by a SAR alone. Nevertheless, the FHA and its conclusions should be addressed in the facility SAR in such a manner as to reflect all relevant fire safety objectives as defined in Paragraph 4.2.0.1 of DOE 420.1 and Section 2 of Attachment 1 of DOE 440.1. For the RPP-WTP Project the relevant fire safety objectives of Paragraph 4.2.0.1 of DOE 420.1 are items (1), (2), and (5)."

Justification: Since the RPP-WTP will be a private facility, owned and operated by BNFL Inc., property loss and program discontinuity potential are economic issues within the purview of BNFL, in consultation with its underwriters. They are not fire safety issues.

Section IV.9.7 Delete entire section.

Justification: Because RPP-WTP will be a private facility, owned and operated by BNFL Inc., the limits of loss potential are established by BNFL and its underwriters, rather than DOE.

Y.0* DOE-STD-1066-97, Fire Protection Design Criteria

Revision: March 1997

Sponsoring Organization: U. S. Department of Energy

RPP-WTP Specific Tailoring

The following tailoring of DOE-STD-1066-97 is required for use by BNFL as an implementing standard for fire safety.

General: Interpret references to "DOE" or "DOE AHJ" or "AHJ" as "DOE Regulatory Unit (RU)" wherever these references refer to regulatory functions that have been assigned to the DOE Regulatory Unit.

Justification: The unique role of the RU in regulating the RPP-WTP Project requires clarification.

Section 4: For the definition of the Authority Having Jurisdiction (AHJ) add the following sentence: "For the RPP-WTP Project, the designated AHJ is the DOE Regulatory Unit."

Justification: The unique role of the RU in regulating the RPP-WTP Project requires clarification.

Section 5.1: Delete subsections 5.1.1 and 5.1.2.

Justification: Because RPP-WTP will be a private facility, owned and operated by BNFL Inc., the limits of loss potential are established by BNFL and its underwriters, rather than DOE.

Section 5.3.1: Revise to read "Facilities where a fire could cause unacceptable off-site or onsite consequences to health and safety should be protected by an automatic fire suppression system (usually a Wet Pipe Sprinkler System). A decision to omit or to install another type of fire suppression system should be justified by the Fire Hazards Analysis."

Justification: Because RPP-WTP will be a private facility, owned and operated by BNFL Inc., protection requirements based on property loss and the determination of program interruption acceptability are established by BNFL and its underwriters. Reference to the FHA is consistent with governing Safety Criterion 4.5-4, and with the DOE equivalency concept described in DOE-Std-1066-97 Section 1.

Section 5.3.6 Revise second sentence to read "Standpipe systems should be provided in other structures, such as those with extensive and complex interior layouts, where deemed necessary by a qualified fire protection engineer, based on the results of the fire hazards analysis and the baseline needs assessment."

Justification: Because RPP-WTP will be a private facility, determination of the need for specific fire protection features is the responsibility of the owner rather than DOE.

* "X", "Y", and "Z" notations in title will be corrected when these pages are inserted in the SRD Appendix C. These sections are all new and are therefore not shown as redline/strikeout.

Section 8.1 Revise third bullet to read: "Visual alarms for the hearing impaired, where there are high noise levels, or where there are special process requirements as determined by a qualified fire protection engineer." Revise first sentence of the fourth bullet to read: "The fire alarm control panel located near the main entrance or a protected location as determined by a qualified fire protection engineer.

Justification: Because RPP-WTP will be a private facility, determination of the need for specific fire protection features is the responsibility of the owner rather than DOE.

Section 9.5.1 Add the following words: "The fire resistance of special or unique penetration assemblies, such as lead glass windows and shield wall penetrations, may be based on past qualification testing or an equivalency evaluation."

Justification: The RPP-WTP facility is expected to have unique penetration configurations that may be impractical to test. This change clarifies that alternate approaches that provide a comparable level of safety, as described in Section 1 of DOE-Std-1066-97, may be used.

Section 10.4 Add the following words: "The 75-foot travel distance may be exceeded in areas not normally occupied by personnel, where plant equipment alone is located".

Justification: If an area is not normally occupied an accidental breach of a primary confinement system cannot expose personnel to radioactive material.

Section 10.6.3: Revise this section to read: "Exit requirements for toxic and explosive environments should be as determined by a qualified fire protection engineer".

Justification: Because RPP-WTP will be a private facility, determination of the need for specific fire protection features is the responsibility of the owner rather than the DOE. The DOE Explosives Safety Manual applies to environments involving munitions, and is not applicable to the RPP-WTP.

Section 11.3 Revise this section to read: "Where multi-tiered cable trays are installed in configurations that represent a significant fire hazard (as determined by the FHA), they should be provided with fire protection/ suppression as determined by a qualified fire protection engineer, consistent with the results of the FHA."

Justification: Because RPP-WTP will be a private facility, determination of the need for specific fire protection features is the responsibility of the owner rather than DOE.

Section 11.4 Revise this section to read: "Where required by the SAR, critical facilities should be served by dedicated, redundant electric power services. External to the buildings served, the two services should be separated by 4-hour fire-rated construction and should be served from separate sources. Separation may be less than 4-hour (minimum 2-hour) where the services are protected by automatic fire detection and suppression systems and justification is provided in the FHA. In lieu of providing two separate services, a single service supplied from a loop-type transmission or distribution system having sectionalizing features may be provided when the reliability of the single service proves adequate when considered in conformance with IEEE 399 and IEEE 493. Locations where fire can damage both normal and emergency power should be protected by redundant fire protection systems."

Justification: The term "power services" is more consistent with the sentence that follows. The changes clarify that the requirement applies to site power supplies, not to cable routing within the buildings served. Two-hour fire barrier separation combined with automatic fire detection and suppression provides a level of safety equivalent to a 4-hour barrier.

Section 12.4 Delete this section.

Justification: This section is not applicable because there will be no gas-fired process furnaces in the RPP-WTP.

Section 13 Delete all except Subsection 13.1

Justification: The RPP-WTP is not a Plutonium Processing and Handling Facility, a Plutonium Storage Facility, an Enriched Uranium Storage Facility, a Uranium Processing and Handling Facility, a Fuel Reprocessing Facility, or a Uranium Conversion and Recovery Facility.

Z.0* NFPA 801, Standard for Facilities Handling Radioactive Materials

Revision: 1995 edition

Sponsoring Organization: National Fire Protection Association

RPP-WTP Specific Tailoring

The following tailoring of NFPA 801-95 is required for use by BNFL as an implementing standard for fire safety.

General: Interpret references to "AHJ" as "DOE Regulatory Unit (RU)" wherever these references refer to regulatory functions that have been assigned to the DOE Regulatory Unit.

Justification: The unique role of the RU in regulating the RPP-WTP Project requires clarification.

Section 3-8 Replace entire section with the text of the same section from the 1998 version of NFPA 801.

Justification: The NFPA standard was revised in recognition of the impracticality of using only noncombustible surface finishes in areas processing or storing radioactive materials. Conformance with the revised standard will permit the use of limited combustible interior finishes.

Section 6.1.1 Change the code edition for NFPA 70 from 1993 to 1996 and the code edition for NFPA 780 from 1992 to 1995.

Justification: SRD safety criteria 4.3-2 and 4.4-12 reference these more recent editions of NFPA 70 and NFPA 780 as implementing standards. This change resolves the conflict with NFPA 801.

* "X", "Y", and "Z" notations in title will be corrected when these pages are inserted in the SRD Appendix C. These sections are all new and are therefore not shown as redline/strikeout.